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THE MACDONALD LASSIE

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JUNE 1974

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Editor: Gordon Bachman
Managing Editor: Hazel M. Clarke
Associate Editor: Tom Pickup
Family Farm, Office of Information,
Quebec Dept. of Agriculture
Advertising Manager: R. J. Cooke
Production: Dorothy Parsons
Circulation: Mildred Young

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Journal Jottings

Have you thumbed through the family Bible recently? If you have, chances are that you have found, pressed between its pages, a wildflower, a four-leaf clover, or a piece of fern from a floral arrangement that came as a message of cheer at a moment of great happiness or as an offer of comfort in time of sorrow. These may have been placed close to a favourite passage or at random simply that they might be preserved.

That word "preserved" echoes through our articles in this month's issue. I may, indeed, be stretching my imagination when I liken the family Bible to the highly scientific and exacting task involved in a 78,000 specimen collection of the wild plant population, but that is what came to mind when I read Professor Woodland's interesting account of the history and present status of the McGill University

Herbarium which is housed at Macdonald College. As Professor Woodland explains, this invaluable collection, which dates back to the early 1800s, has many uses and serves many people. Merely the fact that there is such a collection is of value; the added immeasurable value is that it has served and will continue to serve a useful function.

A different view of preservation is evident in Professor Jones' article "Basic Training for the Outdoors." With what was only recently comparatively unapproachable areas of our wilderness becoming more accessible to more and more people, the time has come to set up guidelines for the proper use and preservation of these areas and also to instruct those who are now venturing into the unknown. In some instances, their survival, too, may be at stake.

In her article "Additives or Famine" Professor Farmer states "Perishable foods abundant at one time of the year are scarce items later unless preservation methods are employed. Our short growing season in Canada should be a constant reminder to us of our dependence on food preservation methods." Emotions run high on the subject of food additives; I think Professor Farmer puts forth a convincing argument in their defence.

Hazel M. Clarke

In this issue Professor Jones has written an article on outdoor education that is to be commended for its wisdom and foresight. Certainly we have reached the point where we need to alter some of our thinking and habits in our use of the great outdoors. The increase in population, urbanization, and transportation facilities along with a heightened public interest in the outdoors has often put a tremendous strain on our limited parkland and natural resources. One only has to visit some of our more popular national and provincial parks during the summer months to realize how much use and resulting damage to the parks' environment is taking place.

Much of this misuse and damage is unintentional. Many people are simply uninformed as to how to use such a limited recreation resource. They just haven't had sufficient opportunity or contact with the outdoors to understand the basic principles of ecology or the consequences of their actions on the natural environment. It is in response to this need that we are seeing more and more outdoor education courses, both in the elementary schools and in adult education programs. Professor Jones teaches such an evening course at Macdonald.

This idea of outdoor education is fine, but why not also apply it to

agriculture? It seems that a good case can be made for the fact that there is just as much public misunderstanding and misuse of our agricultural resources as of our natural resources. Certainly one could argue that food and agriculture are just as important (most people would say they are more important) as are our natural resources. It would be very difficult for a society to sustain itself without agricultural food production.

This type of agricultural awareness or education is needed because, like the situation facing the natural environment, many urban people are not aware of the damage we are inflicting upon our agricultural base as a result of our actions. How many people are aware of how many acres of farmland we are losing permanently to urbanization each year? How many people are aware of how much it costs to produce a pound of beef? How many people are aware of how many dairy farmers Quebec has lost in the past year? How many people have ever been on a farm?

These types of facts must be made known to urban people so they can become aware of these

problems and become motivated to do something about them. Otherwise they will continue to remain unaware of how many farms and farmers we are losing all the while demanding that food prices be reduced. It is in this urban population where lies the political power necessary to do something about these problems, if only we can make them aware of the problem and give them the correct facts needed to make a correct decision.

At Macdonald we have made some initial steps in informing urban people about agriculture through our evening course programs for beginning farmers and through the school children visitation program to the Macdonald Farm. It is through programs such as these that many urban school children and adults get their first glimpse of agriculture. More recently the college has inherited the Blair Farm near Franklin Centre which will likely play an important role in outdoor and agricultural education in the future.

These are only some initial steps in a giant selling job that needs to be done. Much more work is needed. Perhaps you have some suggestions.

Gordon Bachman

Basic Training for the Outdoors

by Professor A. R. C. Jones,
Woodland Resources,
Department of Renewable
Resources.



More people, more leisure time, but the same amount of land, water and other natural resources. What's the formula that challenges our abilities to manage resources and each year the challenge is becoming greater." (Mutton, 1973)

Another writer has likened this deteriorating situation to the case of the youngster who knows he can go to the cookie jar only so often until it is empty. Having learnt this lesson in our youth, we then proceed to unlearn it as far as natural resources are concerned. If economic processes are compared to the principle of growth - without continuing growth,

there is no "progress". Where is this process leading us? Meadows and his colleagues have indicated one unpleasant direction in their challenging study "The Limits to Growth". Another tack is to learn to live with what we have in an enlightened and ethical fashion. In order to do this in a meaningful way, we must somehow develop in our citizenry Leopold's concept of perception.

The perception of the natural processes by which the land and the living things upon it have achieved their characteristic forms and by which they maintain their existence

... The outstanding characteristics of perception is that it entails no consumption and no dilution of any resource ... To promote perception is the only true creative part of recreational engineering ... It is the expansion of transport without a corresponding growth of perception that threatens us with qualitative bankruptcy of the recreational process. Recreational development is a job not of building roads into lovely country, but of building receptivity into the still unlovely human mind.

Canadians are fortunate in having more wilderness and attractive wildland per capita than any other nation bar none. This fact is now widely known by our neighbours to the south as well as to many other nations. These tourists, their own wilderness gone now, come here to hunt and fish and enjoy the wild scenery, clean water, and free-roaming, untamed wildlife. More and more Canadians are also venturing further afield to taste the joys of outdoor travel encouraged by widespread wilderness publicity and the risks and challenges that lie beyond the monotonous urban fringe.

As this trickle of visitors expands to flood proportions, the formerly pristine parks and immaculate wildlands are beginning to show telltale signs of this heavy traffic in many ways. The litter of careless travellers, the debris and garbage left by irresponsible, untutored, and largely unconcerned campers, and the damage from recreational vehicles have become common sights in most parks, along waterways, and hiking trails. As the pressures of people largely untrained in outdoor skills and in many cases unaware of basic outdoor manners continue to grow, the need for education in the elemental skills of conservation and concepts of wise use of the outdoors grows with them. The increasing use of motorized vehicles — snowmobiles, outboards, trail bikes, and all-terrain vehicles — has greatly aided transport to remote areas. The effect of these influences has become of major concern to planners

and resources managers. The increasing noise, disturbance, and litter occurring in the natural environment greatly reduces the sense of achievement of many travellers on reaching difficult-of-access areas. The "pack-it-in-pack-it-out" school of campers is an endangered if not vanishing species.

A further serious problem to park authorities and others responsible for game reserves and large private holdings is the general ignorance of the rights of private owners and the real dangers of the neophyte loose in the outdoors for the first time. Travellers who get lost, injured, or upset during their trips are often ill-equipped mentally and physically to meet the challenge of the unexpected. These people must be rescued causing nuisance and expense and usually considerable risk for those called upon to aid them.

As these facts become more and more apparent, it is now obvious that some initiation in outdoor skills and manners is badly needed. A sensible code of conduct is just as important in the woods and on the trail as on a public highway. The school-age generation is now being exposed to many types of outdoor programs. This training is becoming as much a part of most school curricula as is driver education. However, the general mass of the population has missed this opportunity to learn about the outdoors and how to behave in it — how to enjoy and use the outdoors without destroying it for others. The need to instill the attitudes of preservation and protection of natural values and

scenic splendours for generations to come epitomizes Leopold's concept of the ethic of perception of the environment.

With this in mind an adult education course to introduce interested amateurs to the outdoors was organized in 1972 at Macdonald College. Lectures and films were used to teach the students the fundamental skills. Field trips were made to practise the major activities and to expose the students to several seasonal outdoor experiences. A selected bibliography of useful books, pamphlets, and articles on the various topics was prepared.

The main concern was with those people who were interested in non-competitive participation in some form of physical outdoor activity such as hiking, cross-country skiing, canoeing, and orienteering. At the same time, the students were introduced to elementary conservation principles, tree and plant identification, edible wild plants, bird observation and animal signs, survival methods, first aid and safety precautions. The field trips were used to reinforce the topics covered and to emphasize some of the skills involved in each activity. A dual purpose was achieved. Not only were the students learning to cope with life in the outdoors, they were also acquiring skills and knowledge that would help them to understand it better, enjoy it more fully, and protect it from abusive practices.

Conservation Principles

The primary need to protect the natural environment from physical

Is this the price of "progress"? An abandoned surveyor's camp with accompanying debris contrasts sharply with the peace and tranquility (photo, page 3) of a wilderness sunset in central Saskatchewan, an area as yet relatively untouched by development.



Outdoor Activities and Behaviour

An important dividend from practical outings to test equipment and pass on certain tricks of the trade is the opportunity it offers to practise basic skills in selected activities. Cross-country ski striding and poling, the techniques of paddling and portaging a canoe, various hiking and mountaineering methods are all quickly acquired during such outings. Considerations in the selection of a good campsite and its maintenance can be learned from example and practice. As the pressure of users builds up in the back country, special problems are arising. Common to most is the matter of unsightly litter, the destruction of trees and plants from excessive tenting and campfires, pollution of water sources from use of detergents, indiscriminate elimination of human wastes, and trail and portage erosion. Kelmsley (1973) suggests new guidelines for backpackers in heavy-use areas. Campfires should be replaced by portable stoves or "camp cold". Ditching tents, clearing campsites, and the cutting of boughs for bedding should no longer be permitted nor should camping in large groups. The larger the group, the greater the detrimental impact on the site. The conscientious camper now washes himself and his utensils at least 100 feet from a water source to prevent contamination — avoids the use of detergents — buries human wastes at least 200 feet from any water supply — carries out his trash — camps at designated campsites — avoids cutting live trees — stays on the trail and is at all times careful with fire.

damage such as fire, litter, vandalism, erosion, and indiscriminate collection and other types of abuse is of foremost concern. Next in importance is the need to instill a respect for other individuals' use of the outdoors. This is an essential idea for all who wish to travel the trails and waterways of the nation. Single purpose use is a thing of the past. The recreationist must learn respect for those who use or work in the forest for a livelihood. The trapper, the prospector, the woodsman, and forester as well as the hunter all have their place in outdoor recreation. They may need educating also but they are now frequent partners with the mass of recreationists. Thirdly, to most urban dwellers, the outdoors is an alien environment. They must learn to treat it with caution and good judgement and be aware of its many moods and its inherent risks. A sense of outdoor safety and a survival

instinct must be developed quickly. Choosing a route, weighing the risks, playing it safe, trying not to achieve too much are often lessons that are learned the hard way, frequently with tragic consequences.

The outdoors can be dangerous if it is treated with too casual an attitude. It is important to stress, not minimize, the risks that use of the outdoors can bring to the uninitiated and the unprepared. This is not to discourage novices but to bring to their attention the need for careful planning and wise execution of plans for weekend outings or longer trips. A well-planned and successful outing provides a great deal of satisfaction. Careful consideration of the hazards of wind, weather, and distance are all important aspects of any outdoor travel experience.

These basic necessities can best be learned in the field so that they become lifetime habits to every person using the outdoors and set an example to the generations which follow.

Education is the Key

As examples of the irresponsible attitude of governments toward the environment continue to become apparent with massive ecologically risky and environmentally damaging projects on a grand scale, the need for an outdoor social conscience is essential as human numbers begin to press against human values. With education comes the gradual comprehension of the fragile nature of wilderness ecosystems and an understanding of the restorative powers of the natural environment. As these grow so will a person's consciousness of the need for a constant effort to protect wild areas from the impact of negligent, abusive, and destructive forces. Larsen in 1957 in outlining the goals for national parks quoted Harkin, the first commissioner:

National parks are maintained for all the people — for the ill, that they may be restored, for the well that they may be fortified, and inspired by the sunshine, the fresh air, the beauty, and all the other healing, ennobling and inspiring agencies of nature.

If the outdoors is to continue to provide these values to the ever-growing myriads of people who wish and are entitled to enjoy them, the basic guidelines for enjoyment, protection, and preservation of this milieu become of paramount importance. The rules are simple

and easily learned for those who are ready to accept them as a small price to pay for the privilege of using outdoors Canada.

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A Library of Plants!

by Dennis W. Woodland,
Department of Plant Pathology and
Curator, McGill University
Herbarium.

Many people think of a library as either a collection of books or a place where the individual can go to gain information about a particular topic found in books or journals arranged according to a system of classification. But modern day libraries are more than this with lounges, music listening rooms, television rooms, and art galleries as well as the typical reading areas and stacks of books. But you say, "A library made up of plants? I've never heard of such a library!" Let me explain.

The word herbarium can be defined as a collection of dried plants usually mounted, identified, and arranged according to a classification system. The main differences by definition then between a library and an herbarium are the types of materials which are classified for information retrieval; on one hand printed material, records, tapes, etc., and on the other hand plants and information about them.

At the McGill University Herbarium, which is located on the Macdonald Campus, the plant specimens are prepared in a particular manner for use in the herbarium. A representative specimen from a wild plant population is first collected. (Collections in other herbaria may include cultivated plants; indeed, they may be solely devoted to cultivated specimens.) This specimen, if possible, should have all the necessary plant parts needed for identification (ex., flower, leaves, stem, and root). It is then placed in folded newsprint in a plant press between successive layers of blotting paper and cardboard with the ridges running crosswise to the press (Figure 1). The newsprint and blotting paper help to absorb moisture from the plant while air passing through the

cardboard helps remove the moisture from the blotters, especially when the entire press is placed on its side over a heat source (Figure 2). Rope or belts around the press apply pressure to the plants to flatten them. When the plant is dry, normally in 24-28 hours, the plant is ready to mount or attach to special high quality rag content paper with a plastic glue (Figure 3). A label containing all the necessary information about the plant (name, location, collector, date of collection, habitat, etc.) is glued to the lower right-hand corner of the sheet. Following stamping each sheet with the name McGill University Herbarium and an accession number, the sheets are filed in folders in special light, dust, and insect proof cases (Figure 4). The specimens are filed according to a classification system for easy retrieval. If specimens are handled properly, they should last indefinitely.

The herbarium specimens are used by many different types of people. These may include, just to name a few, the student studying botany, the geographer interested in plant distribution, the geneticist looking at speciation and hybridization problems, the pollution biologist (cover photo), the weed biologist, the ecologist, the plant chemist interested in certain plant-produced compounds, the plant pathologist studying plant diseases, the agriculturist, and the true botanist or taxonomist who may be interested in the naming, identification, and biology of plants.

A plant identification service for the public is also provided free of charge. Plants for identification can be mailed (with necessary plant parts) to the McGill University

Herbarium. The name and needed information will be sent to the inquirer.

The specimens are loaned to professional botanists and institutions around the world where plant research is taking place. Certain borrowing procedures must be followed so that the specimens are handled properly and returned undamaged.

A brief history of the holdings of the present herbarium should be mentioned.

Shortly after the founding of McGill, museum specimens, including plant material, were accumulated and housed in the old Burnside Hall. In 1856 Burnside Hall burned down and with it all of the museum specimens which had been accumulated at McGill, including many specimens belonging to the then Principal of the University, Sir John William Dawson.

Following the fire, the Board of Governors were able to purchase a valuable mineral collection from Dr. Andrew F. Holmes, the first Professor of Botany at McGill and one of the organizers of the Montreal Medical Institution and the now defunct Natural History Society of Montreal. At this same time Dr. Holmes donated his personal herbarium, then one of the largest in Canada, to the University. This collection of almost 600 specimens had been collected in England and in the Montreal region between 1820 and 1825. It forms the nucleus for the present herbarium and is also the earliest Canadian plant collection in Canada. Canadian collections dating to as early as 1620 are found in European herbaria.

Under the leadership of Sir William Dawson as Principal, the University became world renowned. Dawson's enthusiasm stimulated the Natural Sciences with rapid growth in botany and the herbarium. During the last half of the 19th century a number of well-known botanists worked at McGill and added specimens to the herbarium. These included Professors James Barnston, Dawson, and David P. Penhallow. It was during this time to 1910 that we find the busiest period of the herbarium with approximately 25,000 specimens being added. The specimens were not entirely the personal collections of the above mentioned botanists, but included exchanges with other botanists, gifts, and donations. The most notable ones were: Robert M. Middleton, Jr., with a collection of over 1,300 specimens from England, North Africa, and the U.S.A.; T. J. W. Burgess, a Canadian with a North American collection of over 5,500 specimens; C. G. Pringle, a native of Vermont whose collection of over 2,000 specimens came mostly from Mexico; A. A. Heller, whose 1,200 specimens came from the U.S. and Hawaii; A. H. Curtis' collection from North America numbered almost 800 specimens; the John Ball collection of 1,700 specimens from Asia, South America, and eastern North America; Marion Moodies' collection of Canadian Prairie plants of 750 specimens; H. H. Lyman, entomologist and namesake of the Lyman Entomological Museum at Macdonald, whose collection came to nearly 1,000 specimens; and Canada's most famous botanist, John Macoun, whose *Flora Canadensis*, Geological and Natural History Survey collection



Figure 1

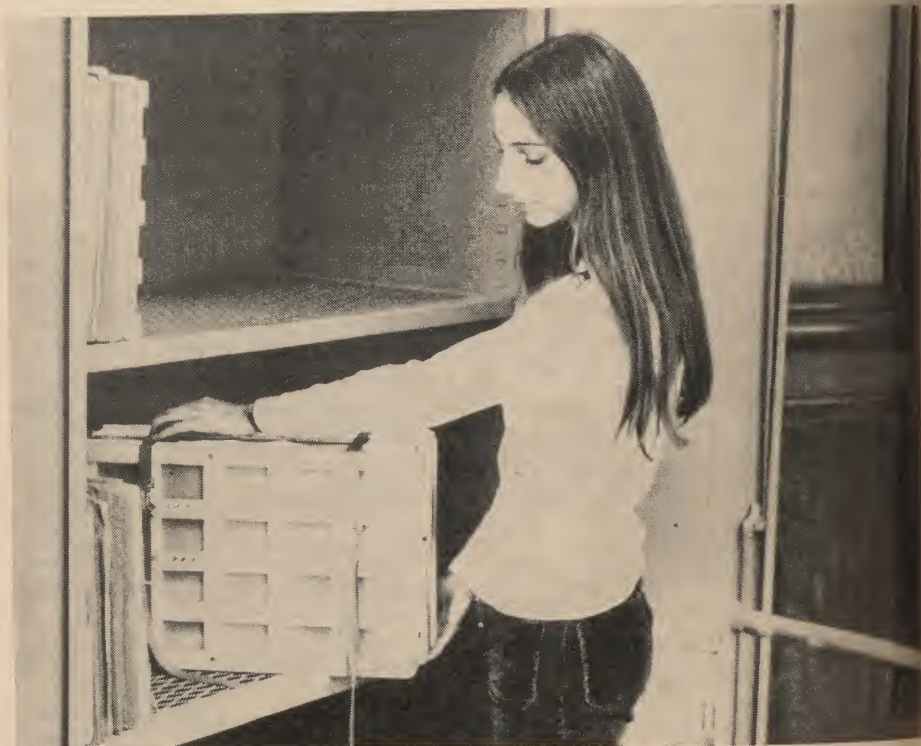


Figure 2

from all across Canada numbered about 2,600 specimens.

Following the death of Penhallow in 1910, the herbarium entered a period of almost one-half century of inactivity until the 1950s. However, it was during this time that the herbarium of the debt-plagued Natural History Society of Montreal was given to McGill. This collection was estimated to have contained about 8,000 specimens some of which have not been entered into the present collection because of

incomplete information on the labels. This collection was made up of bits and pieces from many collections but did contain a few large collections. The most notable one was by Robert Campbell, amateur botanist and Presbyterian minister, whose 3,000 specimens were from all parts of Canada.

A rebirth of the herbarium occurred in the late 1950s when Dr. Paul Maycock, a Plant Ecologist, joined McGill. During the approxi-



Figure 3



Figure 4

nately 10 years of Dr. Maycock's stay the herbarium was curated and received great care. As a result of his efforts and those of his students, the collection more than doubled in size. Exchange programs were initiated with other eastern Canadian institutions and many of the very old specimens were repaired and incorporated into the present collection. It would be safe to say that Dr. Maycock did more for the herbarium than any one man before him. It was unfortunate that when Dr. Maycock

left McGill in 1968 interest in the herbarium began to wane; by 1971 activity in the herbarium was almost non-existent.

With the founding of Macdonald College and the development of a plant biology program in 1907-1911 the need was felt for an herbarium. The basis for this Macdonald herbarium was a collection of 1,000 specimens from John Macoun of Ottawa. The plant collection was mostly from Ottawa, Ontario, and adjacent Quebec.

Little is known at present of the use of this herbarium until the late 1920s when it was organized. The Pasture Survey of the Eastern Townships and Argenteuil County by the Agronomy Department in 1931-1933 added to this collection. The intervening years from 1933 to the late 1950s saw very little herbarium activity at Macdonald. The odd student or staff collection was added but no real use was made of the herbarium. Like the McGill Campus collection, at the time, it was nothing but a "pile of hay" taking up storage space at first in one storage area and then in another.

In the late 1950s and early 1960s, Dr. Dorothy Swales, present Honorary Curator of the Herbarium, became interested in the collection and began to make frequent trips to the Canadian Arctic. The herbarium was once again re-organized and specimens added. Exchange programs with some eastern Canadian herbaria and some in Europe, which specialized in Arctic plants, were initiated. New life came into the old collection. In the fall of 1971 the present curator, Professor Dennis W. Woodland, joined the teaching staff of the Department of Plant Pathology. During the next year the Macdonald herbarium was completely checked and accessioned. As of September, 1972, the Macdonald herbarium was found to contain almost 13,000 accessioned plants.

During this same time span negotiations were underway with the Biology Department on the McGill Campus to combine the two herbaria into one McGill University Herbarium on the Macdonald

(Continued on Page 20)

Additives

or

Famine

by Professor F. A. Farmer,
School of Food Science,

(This paper was part of the proceedings of Colloque Nutrition '73 and was published in *Annales de l'ACFAS*, Vol. 40, Supplement, 1973, pp. 83-85.)

In 1970 we awoke to the news that cyclamates (a food additive) had been banned. The controversy still goes on (Anonymous, 1973). About the same time it was reported that men in Quebec City had died because cobalt had been used as a food additive in the production of beer (Alexander, 1969). What is a food additive and has it any connection with prevention of famine? For this discussion, I will consider additives to be substances (both nutritive and non-nutritive) purposely added to foods and also residues introduced incidentally. Additives may be used to improve appearance or keeping qualities, enhance flavour, assist in processing or increase the nutritive value of a food, but residues of pesticides, packaging materials, seed coverings, etc. can also get into food.

Man's existence in relation to his food supply has always been precarious. The last great famine due to natural causes, in which two to four million people died, occurred in India in 1943, when flooding destroyed the rice crop (Brown and Finsterbusch, 1972). Fortunately world reserves of wheat and other crops, made possible by the Green Revolution (Johnson, 1972), now provide cereal for all. In 1970 Norman Borlaug was given the Nobel Peace Prize for his genetic research on high-yielding, rust-resistant Mexican wheat. Artificial fertilizers had already provided the leverage for the spectacular increase in yield of wheat in Europe

from 1850-1950 (deWit, 1968). Now artificial fertilizers are needed to provide the nitrogen, phosphorus, and potassium for the miracle wheat in Latin America, Asia, and Africa. In addition, the new technology requires chemicals for plant protection (Johnson, 1972). It has been estimated that if the insects of tropical Africa could be kept under control, Africa would be able to feed eight times as many people as those now living there (Borgstrom, 1969). In some of the developing countries as much as 25 per cent of their grain crop is lost to rodents before it reaches the table. In the same countries, 10 per cent of the harvest may be destroyed by insects, another 10 per cent rendered unusable due to fungus infection. Even in Canada 10 — 15 per cent of our annual average crop losses in Manitoba and Saskatchewan are ascribed to weeds (Borgstrom 1969). Many of these problems can be at least partially solved by the judicious use of insecticides, fungicides, herbicides, and pesticides (Johnson, 1972). Inevitably, small residues of these additives will appear in our foods. It is only natural that we should be concerned. However, without these aids, and additives used in food preservation, it would not be possible to feed the people of the world. We are inclined to think in domestic or regional terms rather than to recognize the global and universal scope of the feeding problem. Additives are essential if we are to provide the calories needed by our ever-increasing world population. Cereals grown in one area must be transported for use in another. Perishable foods abundant at one time of the year are scarce items later unless

preservation methods are employed. Our short growing season in Canada should be a constant reminder to us of our dependence on food preservation methods.

We are fortunate in Canada in having a Department of National Health and Welfare (Health Protection Branch) made up of personnel who act as watch dogs over our food supply. These scientists are concerned about food additives, but it is by no means their primary concern. Two other aspects of food quality are of greater importance. Firstly, they watch for unsanitary handling of food in restaurants and stores as this can be a major source of food poisoning. If food is eaten the same day it is purchased, as is customary in many tropical countries, there is no need for food preservation. However, in a society such as ours where food is purchased weekly, food preservation, with its accompanying additives is a necessity. Secondly, scientists of the Health Protection Branch are concerned about the nutritional value of our food. Bread made from wheat is the staple food of Canadians. When flour is highly refined to provide an appealing white loaf, the nutritive value of the flour is decreased. For years whole wheat bread was recommended to Canadians by dietitians but finally enriched bread was provided instead. This is made from flour to which thiamine, riboflavin, niacin and iron have been added. These are not the only vitamins and minerals removed in the milling process but others, like pantothenic acid and biotin, are never lacking in the Canadian diet (Robinson, 1968) so there seems

no justification for replacing them. In Canada we have abundant supplies of food. There is enough for all who can buy it. We even provide money to those who cannot work so that they can buy food for their families. The microbiological and nutritional quality of the food is in our hands. We can provide clean, safe, appetizing meals for our families and that, not additives, should be our concern.

Many consumers, reading the newspaper headlines about cyclamates, nitrates, cobalt poisoning and fluorosis have turned to health foods as a way out of their dilemma. They willingly pay higher prices for food in order to buy products which the storekeepers claim are uncontaminated. Some of these foods have an interesting taste and add variety to our diet, but they are not safer than foods in the supermarket. All our foods are carefully checked for goitrogens, cyanogens, excess minerals or vitamins in amounts which can cause problems. There is no perfect food and no perfect diet. There are many required nutrients and they are widely distributed in our foods. The best assurance for formulating an adequate diet is to keep within the framework of Canada's Food Guide but to select as great a variety of foods as the budget allows. One of the dangers of paying a higher price for health foods is that the funds available to the family, for the other foods suggested in Canada's Food Guide, are then limited.

There has been much concern of late about harmless but unnecessary additions such as salt and monosodium glutamate to baby foods. This is a serious problem. The liver of infants up to three months of age is not fully functional, especially the normal detoxifying mechanism (FAO, 1972). At the 15th Meeting of the FAO/WHO Expert Committee on Food Additives, 1972 (FAO, 1972) a recommendation was passed that baby foods should be prepared without additives whenever possible. Extension of shelf life, homogenization to ensure adequate sterilization or the maintenance of consistency and texture to ensure safe and acceptable use might constitute justification for using additives but improvements in appearance or taste do not. It should be remembered, moreover, that the Academy of Pediatrics recommends that the optimal time for introducing solid foods into an infant's diet is about three months of age (Robinson, 1968), so that if we provide babies with milk rather than solid foods there is really no problem. When the solid foods are added after three months of age, the baby's liver is functional. It is also important for us to remember that the nutritional requirements of children and growing teenagers are far more critical than those of adults. Adults can survive for many years on diets completely inadequate for children. It is the children we must protect. What are we to do?

1. Let the experts worry about additives, realizing that they are watching the levels of radioactive materials, pesticide residues, solvents, artificial

flavouring, vitamins, mercury, etc. in our diet and will warn us if the levels get too high.

2. Provide all children with clean, safe, attractive meals in pleasant surroundings.
3. Train children to select from the abundance of foods available in Canada a great variety of different foods according to Canada's Food Guide and to eat these in moderation.

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The Family

Farm

Published in the interests of the farmers of the province by the Quebec Department of Agriculture

Dairy Heifer Rearing and Marketing Program

Quebec has won a reputation for its replacement stock, and the quality of our dairy cattle has earned them international prestige. As a result, they are sought after by cattlemen from other provinces and countries.

However, the prices offered by the many importers for our replacement animals (especially heifer calves or heifers from four to 20 months old) are so attractive that dairy farmers often part with very valuable breeding stock.

Such uncontrolled sale of our replacement animals could be detrimental or even fatal to the success of the artificial insemination and dairy herd testing programs to which the Quebec Department of Agriculture has devoted considerable funds.

AIM

The purposes of the dairy heifer rearing and marketing program are as follows:

- a) the genetic improvement of Quebec's dairy herds;
- b) to maintain and improve the quality and number of our dairy breeding stock;
- c) to increase the number of elite breeders;
- d) to develop a rational system of sales conducive, in the first place, to an exchange of foundation animals within the province or to get a larger share of the national or international market without sacrificing the quality of our herd replacements;
- e) to meet a need of Quebec dairy farmers and their associations.

ELIGIBILITY CONDITIONS

- 1) Apply to participate in the program at the local agricultural information office or at the regional office;
- 2) Own a herd which is eligible for a herd testing program or be a specialized raiser of dairy heifers;
- 3) Belong to a dairy breed association. A dairy farmer who is not already a member of his breed association must pay his fees to it when he enrolls for this program;
- 4) Have a healthy herd;
- 5) Cooperate with the Department's personnel in pursuing the aims of this program by making use of other programs promoted or encouraged by the Department and by dairy breed associations, including:

- a) Artificial insemination;
- b) Dairy herd testing (postal cow testing, regular Quebec D.H.A., official Quebec D.H.A., and R.O.P.);
- c) A recognized method of identifying his animals — registration certificates (purebreds) — NIP card (crossbred females);
- d) Herd classification;
- e) Choosing the best heifers for replacement. In order to improve his herd, the dairy farmer ought to plan to replace at least 20 per cent of the cows in his herd each year and keep heifers from cows which are considered better than the average of the herd;
- f) Conform to health requirements. If an applicant is unable to satisfy all of these conditions, his eligibility for the program will have to be considered by the live-stock adviser of the Department's regional agricultural office.

BENEFITS

A) Technical aid

1. Technical assistance in conjunction with the breed associations to improve dairy herds enrolled for the program;
2. Participation in the activities of breed associations, including meetings, study days, auctions, etc

B) Marketing

1. Locally: A well-organized system for buying and selling dairy breeding stock, with an up-to-date list of animals which are for sale based on individual, regional, and provincial records;
2. Export: The provincial agent receives requests from buyers or investigates markets. With the help of his committee he sets fair prices for each class of animal. He negotiates contracts, invites bids from accredited dealers for carrying them out and publishes prices for the benefit of interested parties. He and his committee supervise the carrying out of contracts.

C) Financial aid

Herd owners enrolled for this program may qualify for loans to buy foundation stock under the Farm Improvement Act.

Financial Aid for the Construction and Fixing-up of Housing for Seasonal Farm Labour

The concentration, in certain localities, of agricultural producers needing seasonal help is responsible each year for local scarcities of farm labour. It then sometimes becomes necessary to

resort to farm labour from very distant areas. Producers then have to provide adequate housing close to the work. The existing housing is insufficient or inadequate to fulfil the needs.

To remedy this situation, the Quebec Department of Agriculture, pursuant to the federal-provincial farm labour agreement, offers to share the cost of construction or fixing-up of sanitary housing on farms.

Grant

The grant may amount to 50 per cent of the cost of construction or renovation of housing. It is, however, limited to \$300 for each seasonal worker who could be lodged in it.

Eligibility

- a) The grant is paid to the farm producer for the construction and renovation of buildings to house paid help. It does not apply to members of his family;
- b) housing for whose construction and renovation a grant has been paid must be available to house farm help in normal working periods during the five years following the payment of the said grant;
- c) the construction and renovation work must be carried out according to the standards and requirements of the Quebec Department of Agriculture and the Quebec Department of Health.

For this purpose, sufficiently detailed plans must be submitted to and approved by the competent authorities before the work begins.

Application

Any farm producer who wishes to benefit from this policy must

apply to his local agronome, who will give him the necessary forms.

Payment

Financial aid is paid upon submission of a detailed statement of account of expenses incurred.

Specifications

The following specifications will serve as a guide in making plans for lodging seasonal farm workers:

- a) Total floor space per man: for 10 men: 57 square feet or more per man, for 20 men: 54 square feet or more per man.

- b) Lighting: Window surface may equal six per cent or more of the floor space.

- c) Washing facilities and toilets: one shower per 15 men; one toilet per 10 men; one wash basin per five men.

Aid for Marketing Fruit and Vegetables

Aims: This assistance is intended to encourage maximum use of fruit and vegetables grown in Quebec. In particular, it aims to promote the growing of horticultural crops through the introduction of adequate precooling methods designed to ensure better utilization of these products. This program also aims to improve the quality of fresh horticultural products, regulate the rush of deliveries onto the market, and stabilize prices at a higher level by encouraging the introduction of suitable precooling treatment for each class of horticultural produce.

I — Vacuum Precooling of Lettuce

Aim: The purpose of this program is to convince growers of the profitability and beneficial effects

of the recommended process and encourage them to install the systems and equipment needed to precool lettuce by the vacuum process.

The purpose is fourfold, namely to:

1. perfect a vacuum precooler suited to our production conditions and develop on the spot the technology needed to install, maintain, and operate them;
2. improve the quality, crispness, and succulence of lettuce by slowing down its deterioration, significantly prolonging its shelf life and thereby enhancing its reputation with customers;
3. improve the marketing of lettuce by extending the time during which it can be sold, thus making it easier to match supply to demand and increase the potential of local and outside markets by allowing long distance shipments;
4. reduce imports of lettuce during the growing season by offering Quebec consumers a product that meets the requirements and for which there is a constantly increasing demand owing to changes in buying habits, and, furthermore increase our export possibilities to New England markets.

1. Duration

The duration of the program is limited to three growing seasons and it will end April 1, 1977.

2. Benefits

To achieve these aims the Quebec Department of Agriculture offers groups of growers (farming partnerships and corporations, agricultural cooperatives or syndicates) the following benefits:

- a) in the case of the first group of growers which has built and

installed, with the help of a Quebec firm specializing in this type of work, a lettuce vacuum precooler which, in the opinion of the Department's specialists has been successfully and efficiently operated during a full growing season and is suited to their production conditions, a grant of 50 per cent of the costs incurred to carry out this project, up to a limit of \$15,000;

b) in the case of other groups of growers who may later decide to acquire a vacuum precooler: — a grant of 50 per cent of the purchase cost and installation expenses, up to \$15,000.

Eligibility

To qualify for such grants, producers' groups must satisfy the following conditions:

- a) be a farming corporation or partnership as defined in the Farm Credit Act and Regulations;
- b) be an agricultural cooperative incorporated under the Cooperative Agricultural Associations Act of Quebec or be an agricultural syndicate eligible for loans granted to such syndicates by the Farm Credit Corporation of Canada;
- c) undertake in writing that the lettuce treated in the subsidized equipment shall be graded, sized, and packed in new packages in accordance with the requirements of the Fresh Fruit and Vegetable Regulations and also agree to submit the produce concerned to inspection by representatives of the Department's Probity of Sales Division, wherever they may decide and at any time;
- d) cool the lettuce as quickly as possible after it has been harvested, that is to say not more than six hours may elapse between harvesting and vacuum precooling.

This means that no equipment will be subsidized unless it is in the centre of a production zone or within a radius of five miles of such a zone.

e) undertake, in cases where

produce from other growers is treated by contract in equipment subsidized under this measure, to have the rates which such growers are charged for the said treatment approved by employees of the marketing branch;

f) affix, on every case of vacuum-cooled lettuce, a label guaranteeing this treatment and specifying the place and date thereof.

4. Approval

To qualify for a grant, the vacuum precooling equipment must, except in the case of the prototype developed, be new.

The equipment must also be approved by the Department's food industry technical aid service as regards its compliance with general standards.

5. Limitations to the Subsidy

- a) No grower or producers' group can qualify more than once for a grant for a vacuum precooler;
- b) with regard to the number of grants to be made on an annual basis under this measure, the Department's responsibility is limited to the budget approved specifically for the measure by the National Assembly.

II — HYDRO-ICE COOLING OF VEGETABLES

Aim: The aim of this program is to prove to growers of highly perishable vegetables (sweet corn, radishes, shallots, celery, asparagus, cauliflower, Brussels sprouts, broccoli, endives, parsley, and spinach) the profitability of the recommended process. The process has two main objectives:

- a) to improve the quality and palatability of the products by slowing their deterioration and significantly prolonging their shelf life, thus enhancing their reputation with the consuming public;
- b) to improve the marketing of these products by extending the period during which they can be sold — with the effect, in the

case of perishable vegetables, of making it possible to match the trend of supply with that of demand and also to broaden the potential (local and export) marketing field by allowing long-distance shipments.

1. Duration

The duration of this program is limited to three growing seasons, namely from April 1, 1974 to April 1, 1977.

2. Benefits

In order to promote the use of hydro-ice cooling by growers of highly perishable vegetables, and to give these products a better reputation among consumers, fruit and vegetable wholesalers, and food retailers, and to improve market outlets for such vegetables and make their production and marketing more profitable:

The Department offers the following benefits to growers or groups of growers joined together in a company, cooperative or syndicate who buy a hydro-ice cooler, a grant equal to 50 per cent of the cost of purchase, up to a limit of \$15,000, to be applied to the purchase of a cooling tunnel and the necessary refrigeration equipment.

3. Eligibility

To qualify for such subsidies, producers or producers' groups must satisfy the following conditions:

- a) be a farming partnership or corporation as defined in the Farm Credit Act and Regulations or be a farm operator cultivating on his own account one or more farms of which he is owner or lessee;
- b) be an agricultural cooperative incorporated under the Cooperative Agricultural Associations Act of Quebec or be an agricultural Syndicate eligible for loans granted to such syndicates by the Farm Credit Corporation of Canada;
- c) undertake in writing that the

products treated in the subsidized equipment should be graded, sized, and packed in new packages in accordance with the requirements of the Fresh Fruit and Vegetable Regulations, and also agree to submit the product concerned to inspection by representatives of the Department's Probity of Sales division wherever they may decide and at any time;

d) undertake to follow at all times the instructions given by employees of the Department's food industry technical aid service regarding the treatment of the water used for cooling the vegetables with a chlorinated compound;

e) undertake, in cases where produce from other growers is treated by contract in equipment subsidized under this measure, to have the rates which such growers are charged for the said treatment approved by employees of the Department's Marketing branch.

4. Approval

To be eligible for a grant, the hydro-ice cooling equipment must be new and of the sprinkler type.

The equipment must also be approved by the Department's food industry technical aid service as regards its compliance with general standards.

No hydro-ice precooling equipment will be subsidized unless it is in the centre of a production zone or within a radius of five miles of such a zone.

5. Limitations to the Subsidy

- a) No grower or producers' group can qualify more than once for a grant for a hydro-ice precooler.
- b) As regards the number of grants to be made per year under this measure, the Department's responsibility is limited to the budget approved specifically for the measure by the National Assembly.

III — PRECOOLING OF STRAWBERRIES BY THE FORCED AIR TUNNEL METHOD

The Problem: A study of the subject showed that, in order to increase the strawberry growers' income, it was necessary to precool the fruit to keep supply and demand on the local market in step and enable Quebec strawberries to be shipped to distant markets in this and other provinces and in the northeastern United States.

Aim: This program is designed to make facilities for precooling strawberries by the forced air tunnel method available to groups of growers in order to:

- a) organize supply management and avoid sudden price declines;
- b) obtain a distinctive product which can be shipped to peripheral markets of Quebec and will command a higher price;
- c) add days to the marketing period and so raise average prices;
- d) allow our growers access to export markets;
- e) control the quantity of strawberries offered on the Central Market more easily;
- f) improve the "image" of Quebec strawberries with the consumer.

1. Duration

The duration of this program is limited to three growing seasons, that is from April 1, 1974 to November 1, 1977.

2. Benefits

Since the recommended process is almost exclusively for strawberries (thus limiting the period during which the required equipment can be used) and since the measure will, depending on circumstances, be profitable to growers actually taking advantage of it (and producing an estimated 40 per cent of the crop) and also indirectly advantageous to all strawberry growers, the Department offers the following benefits to groups of producers — namely farming corporations and partner-

ships, farming syndicates within the meaning of the federal Farm Credit Act and producers' cooperatives buying a forced air precooling tunnel: a grant covering the cost of buying a tunnel and having it delivered to the site, up to a limit of \$15,000.

3. Eligibility

A) General conditions

To qualify for this subsidy a group of producers must satisfy the following conditions:

- 1. be a farming corporation or partnership as defined in the provincial Farm Credit Act and regulations;
- 2. be an agricultural cooperative incorporated under the Quebec agricultural cooperatives act or be an agricultural syndicate eligible for loans granted by the Farm Credit Corporation of Canada;
- 3. undertake in writing to satisfy the following conditions:
 - a) have the machine supplied from at least 50 acres of strawberries within a radius of five miles of it, so that no longer than two hours elapse between picking and the start of precooling, and see that at least 14,000 12-pint crates of strawberries are precooled during a season per unit installed;
 - b) precool only strawberries which meet the requirements for grade 1 as described in the fruit and vegetable regulations of the provincial Agricultural Products and Food Act;
 - c) use only new containers approved by the sales probity division as fit for packing strawberries intended for precooling;
 - d) agree to submit the treated product to inspection by representatives of the Department's sales probity division at any time and place they may determine;
 - e) provide or construct to the satisfaction of the Marketing branch: — cold storage facilities for storing the treated product for a charge which is strictly in keeping with operating expenses,

taking into account the subsidy granted for forced air precooling; — tractors for loading and unloading to handle the strawberries, and also the necessary pallets; — transport facilities by insulated and refrigerated truck;

f) provide the sales probity division, or any other service or employee the Department's authorities designate for the purpose, with daily information on request about the quantity and grade of strawberries harvested, the quantity precooled and the selling price by grade of the strawberries marketed;

g) appoint, keep at his post, and pay during the operating season a person responsible for ensuring the efficient operation of the precooling tunnel and for setting organized delivery dates of lots of strawberries to be cooled;

h) bear the cost of connecting, operating, and maintaining the precooling tunnels and of the equipment required for filling and emptying them;

i) agree that other fruits and vegetables for which it may subsequently be considered profitable to use the tunnels shall be treated under contract in equipment subsidized under the measure, and submit the rates which growers of such products are charged for the treatment to the approval of the Marketing branch and, if need be, adjust the said rates to the levels prescribed by that branch;

j) agree unconditionally and without compensation that if, in the opinion of the authorities of the Department and the Marketing branch, the group no longer satisfies the above-listed general eligibility conditions or the following special conditions, it will sell the subsidized precooling tunnel for one dollar to any individual, group

or organization the Department may indicate to it, through the agency of the agricultural products marketing branch.

B) Special conditions

a) Cooperatives and collector-shippers that are members of agricultural syndicates receiving a precooling tunnel grant must keep available for inspection and verification by the Department's authorities and by persons they delegate for that purpose, the bookkeeping records of their operations and all vouchers connected with the operation of the precooling tunnels and the marketing of strawberries, whether precooled or not, that they handle during a season, the said records to be kept available for at least three years after the end of that season and for as long as they retain possession of a tunnel subsidized under this measure;

b) collector-shippers belonging to agricultural syndicates taking advantage of this measure, must undertake in writing never to sell on consignment any produce treated in a tunnel subsidized under this measure. They must also undertake to operate only on a sales commission basis, such commission never to exceed 10 per cent of the selling price excluding transportation costs. The latter must also be approved by the Marketing branch;

c) cooperatives taking advantage of the precooling tunnel subsidy must charge their members only the real labour and usage costs for having strawberries treated in this equipment.

4. Approval

In order to qualify for a grant, precooling tunnels must be new and of forced-air type. They must

also be approved by the technical aid to the food industry service as regards their general specifications.

5. Limitations to the Subsidy

a) Since, by their nature, farming corporations and partnerships and agricultural syndicates are restricted groups of producers, they can qualify for a forced-air tunnel precooling grant only once.

b) Collector-shippers belonging to an agricultural syndicate will at first be eligible for a single precooling tunnel grant. However, since their operations are on a bigger scale, they may, after a year of operation and while this program is in force, obtain another such grant by virtue of membership in a second agricultural syndicate, on condition that they can prove to the satisfaction of the authorities of the Department and the Marketing branch that the affair will be advantageous to the growers they deal with and to the growers in general. For this purpose, they will be required to show that they have taken the necessary steps to coordinate their marketing activities efficiently with those of the growers' cooperatives engaged in marketing precooled strawberries.

c) Growers' cooperatives with a large number of members and covering different growing areas may obtain more than one grant, starting the first year, provided that, for each precooling tunnel installed under this measure they can satisfy all the general and special conditions hereinabove described.

d) The Department's responsibility with regard to the number of grants to be made per year under this measure is limited to the budget specifically approved for it by the National Assembly.

This Month with the



Welcome to a New Branch

Seventeen women will long remember April 17, 1974. Sixteen of them got together on that day and formed a new branch of the Quebec Women's Institutes,.... and the seventeenth, Mrs. J. W. Westover, Provincial President, presided over the first meeting and the installation of officers. The branch is **Grosse-Ile** and is located on the Magdalen Islands.

It was a very elated Mrs. Westover that discussed her trip to the islands an hour or so after her flight home. The trip had been in the making for some time, largely because of correspondence between a few women on the Islands and W.I. branches on the Gaspé. This desire to find out more about the Women's Institutes prompted Mrs. Westover to fly up to talk with as many women as possible. She hadn't really expected to formally open a branch right away but at the meeting called, 16 of the 23 present became Q.W.I. members, and there is a good possibility of more joining.

Mrs. Westover stayed with Mrs. Creighton Richards, who, with her husband, runs a general store. It was a delightful, friendly place to stay and Mrs. Westover met many of the residents at the Richards or while being driven around by Mrs. Keating, the branch's first President. Mrs. Richards became Secretary-Treasurer and Mrs. Kenneth Mackey is the 1st Vice President.

The main industry in the Islands is fishing and when the lobster season starts everyone is up around 2 a.m. — the men out in their boats and the women working

in the fish hatcheries. Many of the women are extremely interested in handicrafts. They want to perfect what they already know, learn new crafts such as weaving, and eventually find an outlet for selling them.

I'm sure that the other Q.W.I. branches offer a warm welcome to their newest branch. As warm a welcome as Mrs. Westover and Douglas Menzies, Fieldman for the Quebec Farmers Association who accompanied her, received. With the gratifying words "Do come back" still echoing through her mind, Mrs. Westover said she certainly hopes that one day once again she'll return to the Magdalen Islands and its warm hospitality.

A Celebration

St. Andrew's Presbyterian Church Hall was the scene last October 25 of a luncheon to celebrate the 55th Anniversary of the **Fort Coulonge W.I.** (Pontiac Co.). An anniversary cake flanked with blue and gold candles made an attractive centrepiece for the tastefully decorated buffet table. Corsages were presented to the branch President, members of Pontiac County executive, and to five ladies who became Institute members of this branch over 50 years ago.

Seated at the head table were: Mrs. Evelyne Routliffe, Branch President, Mrs. Ina Kilgour, County President, Mrs. Violet Poole, 1st County Vice-President, Mrs. Evelyn Duff, County Secretary, Mrs. Joan Mavor, whose grandmother was one of those instrumental in the organization of the W.I. in Fort Coulonge, Mrs. Dave Stitt, Mrs. Ella Sharpe, Mrs. Florence Neville, all charter

members, and Mrs. Anne Fumerton and Mrs. Grace Smith who became members in 1919.

The anniversary cake was cut by the oldest charter member present, Mrs. Dave Stitt, who, unlike most women, was proud to tell us she had just celebrated her 94th birthday.

A short resume of the history of the branch was given by Mrs. Eileen Colton — a history filled with many and varied projects. One of the earliest of these was the purchase of a steeple bell for the protestant school, followed by the installation of water in the cemetery. W.I. members were active in the "Save the Bridge" campaign which ended successfully.

Letters of regret were read from former members who were unable to attend the luncheon and these brought back pleasant memories of long ago meetings.

Two members, Mrs. Florence Neville and Mrs. Anne Fumerton, were honoured for their active membership for over half a century and presented with Q.W.I. pins and 50-year bars.

Mrs. Ina Kilgour brought greetings from the county and congratulated the Fort Coulonge branch for their long record of successful endeavours.

Ever See a Blue Daisy?

Do you like arts and crafts? Do you sew, knit, embroider and have a house full of odds and ends that someday you just might use to make this or that? I do and one day I decided I should do something about it. I did. I've opened my own handicraft shop "The Blue Daisy."



As a child, I eagerly awaited the annual school fair list to test out my creative ability. Later I even ventured into entering the local County Fair to compete against some of the real pros. Needless to say, I was a pretty proud girl when my name made it on the list of exhibitor winners.

After I became a member of the Women's Institutes, I again had a further outlet entering the list for W. I. members at the annual fair as well as the J. P. Coats competition and the Canada Central Exhibition.

I was asked to do demonstrations for different Institutes around the county on everything from crewel embroidery to Christmas decorations made from odds and ends. By this time my home was being overrun with stuffed animals, dolls, framed pictures and all kinds of knitted and crocheted items. Then someone suggested to me that perhaps I could sell some of these things. After two year of supplying little shops with my handwork, a new thought entered my mind, "Why could I not do this for myself?" And "The Blue Daisy" was born.

As building was not one of my better talents, my poor husband got saddled with the set of prints I had drawn up. A little barn-type house with a roof of cedar shingles that dropped straight to the ground, some knotty pine and some barn boards put the finishing touches to my shop. I added a spinning wheel, cradle, and wool winder to add charm and stocked it with handmade gift articles which included candles, dolls, ceramics, and dried flowers. Many local people

and Institute members contribute articles on consignment so there are many things to cover various interests. During the winter all the little gift items are prepared for the summer season when the shop is open as well as for the Arts and Crafts Exhibition on Ladies' Night at the Lachute Golf Club in March. I have been told that The Blue Daisy is the only shop of its kind between Ottawa and Montreal.

I would be very interested in sharing new ideas or showing you the latest in arts and crafts if you are passing my shop this summer. You'll find me there from June until October on Highway 8 midway between Lachute, Quebec, and Hawkesbury, Ontario. Just look for "The Blue Daisy."

Grace Morrow,
Brownsburg W. I.,
Argenteuil County.

A Happy Anniversary

Brompton Road Women's Institute (Sherbrooke County) recently celebrated their fiftieth anniversary. Members, husbands, friends, county and provincial members gathered at the Army, Navy, and Airforce Hut in Lennoxville where dinner was served by the Ladies Auxiliary.

Miss Edna Smith, 1st Vice President of the Quebec Women's Institutes, presented 50-year pins to two charter members, Mrs. E. M. Goodfellow and Miss Elsie Winget. Later in the evening Miss Smith, the President Mrs. D. Cullen, and the two charter members went to the Bennett Nursing Home where another charter member, Mrs. H. McLeod, was given her 50-year pin.

Left: Charter member, Mrs. Dave Stitt, cuts the cake at Fort Coulonge's 55th Anniversary luncheon. Right: Seated left to right: Mrs. G. Westman, past president; Mrs. E. Decoteau, 2nd vice-president; Miss Elsie Winget, charter member; Mrs. D. Cullen, president; Mrs. E. M. Goodfellow, secretary and charter member; Mrs. G. Decoteau, 1st vice-president and Mrs. G. Hatch, treasurer. Back row: Mrs. A. Wright, Mrs. H. Clark, Mrs. M. Bown, Mrs. S. Sayer, Mrs. E. Berwick, Mrs. S. Billing, Mrs. G. Hadenko, Mrs. L. Emery, Mrs. A. Graham and Mrs. T. Peasley. The occasion — Brompton Road's 50th Anniversary.

Corsages of yellow carnations tied with blue ribbons were presented to the charter members, Mrs. Cullen, Mrs. S. Parker, County President, and Miss Smith. Mrs. Cullen welcomed guests and members and gave some of the highlights of the past 50 years. Miss Smith proposed a toast to the branch which was responded to by Mrs. E. M. Goodfellow. Congratulations were received from former members, sister branches, and friends. A lovely blue and gold floral centrepiece was a gift from sister branches.

After the dinner a dance was held in the Community Hall. A beautifully decorated anniversary cake was included in the lunch, served at midnight, and climaxed a wonderful evening which was enjoyed by all.



Let's talk Agri-Services.

No matter what farm enterprise you're engaged in, you know the importance of sound financial management to achieve the profit targets you've set.

Recently, we did a lot of research, planning, and studying, to figure out just how we could best help you set objectives and reach goals.

And now, we're pleased to tell you, we really can help.

The programme is called Agri-Services, and it covers everything from loans for breeding cattle, to a low-cost life insurance programme related to your loan plan.

Basically, it's set up to make the "business" part of your farm as easy and uncomplicated as possible.

Naturally we're anxious to tell you all about it and explain the details.

So come on in.

Let's talk Agri-Services.

Anytime.

*Let's
talk.*



The First Canadian Bank

Bank of Montréal



Dear W.I. members:

As a result of the postal strike few reports have arrived so I've paused to look back over the past three years as your Publicity Convener. It has been a wonderful, though sometimes challenging, experience and one I shall long remember. I now have a greater appreciation and understanding of Quebec Women's Institutes and admiration for the dedicated service of its members from branch to provincial level . . . many are "unsung heroines."

Your friendly notes and letters have been very welcome and I look forward to continuing the friendships made and also hope to meet more of you personally. You were such good ambassadors of your communities that I learned something of life in each area. My successor will be in office when you read this. Did your delegate get the name and address of our new Publicity Convener? Do keep sending your branch "stories" and your reports on time. Your county convener has been notified of the month your county branches are scheduled for.

As I think of you all, many things come to mind. To mention a few: Matagami — actively helping in the growth of their town; Val d'Or — an inspiration to small branches; Argenteuil — where the Publicity Convener is putting "W.I. on the map" with her chatty newspaper column; our urban branch (Baldwin-Cartier) West Island is remembered for the lunches served at Convention and their work among the emotionally disturbed children; Bonaventure — where Mrs. Cameron Dow is still an active member and where the President's Banquet is a social event of the year; our President's home county — Brome — where an annual garden party draws large crowds; Chateauguay-Huntingdon — the Apple Cook Book and 50th anniversaries; Compton — radio work and where the W.I. booth at the County Fair is a pleasant surprise each year; Gaspé — where, due to W.I. efforts, traffic has been slowed down in some villages; Gatineau — serving tea at the Ottawa Winter Fair; Megantic — paper and glass recycling; Missisquoi — the site of our first branch . . . some good

actresses there; Montcalm — help to Eskitots and rehabilitated drug addicts; Pontiac — handicraft at local fairs, and Hilda Graham, who livens up Conventions with songs and fun; Quebec — a Labor Day Barbecue; Richmond — a chat in a member's home and a visit with Mrs. Beattie (shortly before her death) at the Wales Homes where W.I. take their turn with the Birthday Parties; Rouville — a speaker on youth work at Rosemere and Shawbridge; Shefford — a winter picnic (this county is Mrs. Ossington's home); Sherbrooke — a float, and fund raising ideas; Stanstead — the school fair and radio work; Two Mountains — a drive to Oka with Mrs. McGibbon and Mrs. Warwick to call at the home of two branch members; Vaudreuil — a 25th anniversary.

In spite of the late season we had a good run of maple sap and were able to give a young man from Spain another "taste of Canada" last weekend — taffy-on-snow.

Mrs. Perley Clark,
Q.W.I. Publicity Convener.

(Continued from Page 9)

Campus. In August of 1972 the move of the McGill Campus collection took place. At the time of the move the McGill Campus collection contained over 64,500 accessioned specimens plus many thousands of unaccessioned old specimens. The two herbaria together made a collection of nearly 78,000 specimens. In the almost two years since the formation of one McGill University Herbarium,

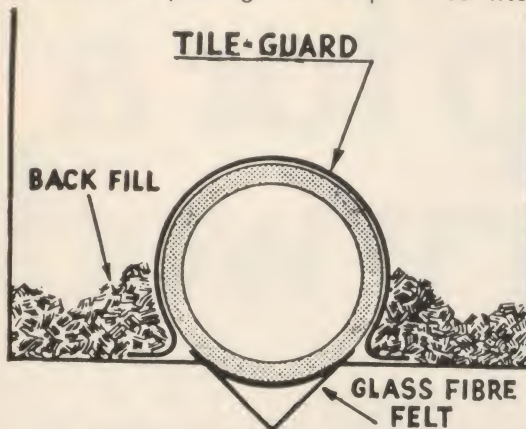
over 10,000 specimens have been accessioned to the collection with another 12-13,000 specimens at various stages of catalogueing. At the present time there are approximately: 3,000 algae, 7,000 fungi, 5,000 mosses and 85,000 vascular plants. The main emphasis of the herbarium is toward a strong representative collection from eastern Canada and the adjacent United States and the Arctic-Alpine regions of the world.

Now for the first time in the history of McGill University the herbarium is being strongly used in conjunction with the field and laboratory aspects of Plant Biology.

It can only be hoped that the McGill University Herbarium will have a long and productive new life, and that its rich, botanical heritage will continue to benefit Canadians and botanists from around the world for generations to come.

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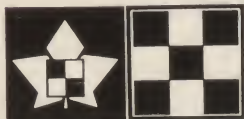
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